

REMARKS

Claims 1-36 are pending in the application. Claims 19-29 stand withdrawn by the Office. Claim 1 has been amended to recite the subject matter with even greater particularity. Support for the amendment can be found throughout the specification as originally filed, e.g., at page 3, paragraphs [0040]-[0042] of the published application (U.S. 2004/0093166). The amendment adds no new matter to the application.

35 U.S.C. § 101

Claims 1-18 and 30-36 were rejected because these claims are allegedly drawn to non-statutory subject matter. Applicant does not agree that the present rejection is proper and maintains that the originally filed claims are directed to statutory subject matter. Nevertheless, in the interest of moving the present application towards allowance, claim 1 has been amended to recite a step of receiving a first image at a processor. Accordingly, applicant submits that the claims are directed to patentable subject matter and requests that the present rejection be reconsidered and withdrawn.

35 U.S.C. § 103(a)

Claims 1-18 and 30-36 were rejected as allegedly unpatentable over Parsons *et al.* (U.S. Patent No. 6,757,412; “Parsons”) in view of Curry *et al.* (U.S. 2003/0219151; “Curry”) in view of Sabol *et al.* (U.S. 2004/0052328; “Sabol”) in view of Echauz *et al.* (U.S. 2002/0103512; “Echauz”) and further in view of Levenson *et al.* (U.S. Patent No. 6,750,964; “Levenson”). All of these references except Sabol and Echauz have been cited previously. The Office has added Sabol and Echauz for allegedly teaching a combinatorial algorithm for ranking extracted features (Office action at page 8). That characterization and many of the Office’s comments seem to be made in support of the Office’s reasoning that “[i]t would have been obvious to one of ordinary skill in the art at the time of the instant invention to have used a combinatorial algorithm as taught by Echauz *et al.* for use in a ranking method as taught by Sabol *et al.* for feature vectors in

order to use the most desirable feature values for classification as taught by Parsons et al. and Curry et al.” (Office action at page 8).

Applicant respectfully traverses. As applicant discussed in the previous Reply, and as conceded by the Office, Parsons, Curry, and Levenson, individually or in combination, do not teach ranking, in a combinatorial manner, the extracted features based on feature performance. Sabol and Echauz do not cure this deficiency for at least the following reasons.

As a threshold issue, applicant respectfully submits that Sabol is not prior art against the present application. Sabol’s application was filed on September 13, 2002. The present application claims priority to U.S. Provisional Application No. 60/410,433, which was also filed on September 13, 2002. Therefore, Sabol is not prior art against the present application. Nevertheless, even if Sabol were considered prior art, Sabol does not describe, *inter alia*, ranking, in a combinatorial manner, the extracted features from the ROI and non-ROI based on feature performance for successful detection of a selected ROI at a pixel level of processing. Rather, Sabol provides a method and system for generating tomographic mammography data and processing the entire data set or a part of the data set containing the region of interest (ROI). The segmented data set, which can include a candidate mass region, a stellate lesion, or a micro-calcification (*see* Sabol, [0049]), is not on a pixel level scale, as required by the present claims. Thus, the Office Action fails to establish that it would have been obvious to combine the disclosure of Sabol with those of Parsons, Curry, and Levenson in an attempt to arrive at the requirements of claim 1.

Echauz, also cited by the Office as a secondary reference, also does not remedy the deficiencies of Parsons, Curry, Sabol and Levenson. Echauz describes, *inter alia*, a method and apparatus for forecasting and controlling neurological abnormalities in humans such as seizures or other brain disturbances. Echauz’s system is based on physiological measures such as brain electrical, chemical or magnetic activity, heart rate, pupil dilation, eye movement, temperature, and chemical concentration of certain substances (*see* Echauz at Abstract). Echauz is silent on image analysis. In contrast, the present application involves ranking, in a combinatorial manner, two or more features (e.g., red (R), green (G), blue (B), hue (H), saturation (S), intensity or value (V), gray intensity after RGB-to-gray conversion and histogram equalization (GI), red/green (RG), red/blue (RB), and green/blue (GB)) extracted from an individual pixel of an image. No

skilled practitioner would find any reason to turn to Echauz to modify the methods of Parsons, Curry, Sabol and Levenson in an attempt to arrive at the present methods. Rather, applicant respectfully submits that hindsight reconstruction is being used in an attempt to arrive at the present invention.

Thus, the Office has not established a *prima facie* case of obviousness against the presently claimed methods. No combination of Parsons, Curry, Sabol, Echauz, or Levenson, teach or suggest every element of the claims. Further, skilled practitioners would not have been motivated by these references, or anything else in the art, to modify the method described in Parsons in an attempt to arrive at applicant's claimed methods. Even if a skilled practitioner were to combine these references, the claimed methods still would not have been obtained because they do not teach or suggest all recited elements, particularly ranking, in a combinatorial manner, the extracted features from the ROI and non-ROI based on feature performance for successful detection of a selected ROI at a pixel level of processing. Applicant therefore respectfully requests that this rejection be reconsidered and withdrawn.

CONCLUSION

Applicant submits that the pending claims are allowable and request early and favorable action thereon. Applicant does not concede any positions of the Office that are not expressed above, nor does applicant concede that there are not other good reasons for patentability of the presented claims or other claims.

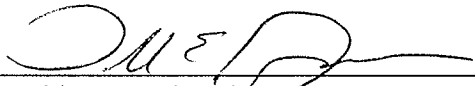
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Page : 12 of 12

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The Petition for One-Month Extension of Time fee (\$130) is being paid on the electronic filing system by way of deposit account authorization. Please apply any other charges or credits to Deposit Account No. 06-1050, referencing Attorney Docket No. 14255-0035001.

Respectfully submitted,

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